

## **REMARKS**

In the Action mailed September 13, 2001, the Examiner rejected claims 11 and 12 under 35 U.S.C. §112 indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Also, claims 1, 8-10, 13-15, 22-24, 27 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,548,494 to Blackman ("Blackman") in view of U.S. Patent No. 5,301,090 to Hed ("Hed"). Claims 2-7 and 16-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed and U.S. Patent No. 5,998,928 to Hipp ("Hipp"). Further, claims 11 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed and U.S. Patent No. 5,791,768 to Splane, Jr. ("Splane"). Also, the Examiner rejected claims 12 and 26 under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed and U.S. Patent No. 5,887,969 to Gordin ("Gordin"). In addition, the Examiner objected to the drawings.

In view of the remarks set forth herein, Applicant respectfully submits that all pending claims are in condition for allowance.

### **A. Objection to Drawings**

In the Office Action the Examiner objected to the drawings submitted under 37 C.F.R. §1.83(a). The Examiner argued that the drawings must show every feature of the invention that is specified in the claims, and therefore, the "rheostat having continuous variable control" in claim 6 and the "second plurality of LEDs" in claim 13 must be shown or the feature canceled from the claims. In addition, the Examiner objected to the drawings as failing to show a switch coupled to a variable resistor designed to selectively short-circuit predetermined sections of the resistor. The Examiner stated that any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing and required correction of the drawings.

Applicant respectfully submits that no drawing showing a rheostat having continuous variable control, a second plurality of LEDs nor a switch coupled to a variable resistor is necessary for an understanding of the subject matter sought to be patented. Under 35 U.S.C. §113, Applicant is only required to furnish a drawing for a proper understanding of the subject matter sought to be patented. In

this case, a drawing is not necessary in order to understand the claimed elements. Furthermore, Applicant's specification at page 5, lines 3-24, with reference to Fig. 5, teaches a rheostat variable resistor. In addition, a second plurality of LEDs is disclosed in the specification at page 5, lines 14-21. This text, in conjunction with the figures submitted, adequately describes the claimed invention. Therefore, Applicant respectfully submits that no further drawing is necessary. As such, Applicant requests that the Examiner remove the objections under 37 C.F.R. §1.83(a) and allow the informal drawings as submitted.

Applicant also notes that formal drawings will be required in the application subsequent to allowance and will address the present requirement under 37 C.F.R. §1.84(p)(5) via drawing amendment at that time.

#### **B. Rejection Under §112**

Claims 11 and 12 were rejected by the Examiner under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner stated both claims 11 and 12 were rejected because the Applicant has not clearly described how the optical assembly and the light source, respectively, is selectively adjustable for focusing and dispersing the LED beam.

Applicant respectfully submits that the invention as claimed does in fact particularly point out and distinctly claim the subject matter that Applicant regards as the invention. Claim 11 calls for an undercabinet lighting assembly where the optical assembly is selectively adjustable for focusing and dispersing the LED beam as desired. As stated in the specification, at page 5, lines 22-29, the LED array forming the light source includes an optical assembly which can be used to focus and disperse the LED beam emitted by the LED array.

Claim 12 calls for an undercabinet lighting assembly where the optical assembly is fixed and the array of LEDs serving as the light source is selectively moveable for focusing and dispersing the LED beam as desired. The specification describes this claimed feature at pages 5 and 6, lines 27-29 and 1-2, respectively, in stating that the focus and dispersion may be adjusted by fixing the optical lens and allowing the LED array to move or rotate.

Therefore, Applicant respectfully submits that the subject matter claimed in claims 11 and 12 has been particularly pointed out and distinctly claimed

as further stated in the specification. As such, Applicant requests that the Examiner remove all rejections to claims 11 and 12 under 35 U.S.C. §112, second paragraph, and allow the claims as written.

**C. Rejection Under §103(a) Over Blackman in View of Hed**

The Examiner also rejected claims 1, 8-10, 13-15, 22-24, 27 and 28 under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed. The Examiner stated that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the LEDs of Hed in the fluorescent light fixture, the night light and the flashlight of Blackman in order to provide a longer lifetime of a light source. In addition, the Examiner stated that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the LEDs in the middle column of the Figure 1 of Hed in the flashlight assembly of Blackman in order to provide a longer lifetime of a light source.

Applicant respectfully submits that the Blackman, in view of Hed, does not render the present invention obvious. Claim 1 of the presently claimed subject matter specifically calls for an undercabinet lighting assembly that comprises a housing, a first plurality of LEDs, an optical assembly and a fixing apparatus disposed on a surface of the housing. In contrast, Blackman is directed to a fluorescent light fixture mounted within a lighting fixture that also includes a night light and a battery operated detachable flashlight. The Examiner states that Blackman discloses everything called for by the presently claimed subject matter except for a plurality of LEDs, which the Examiner states is disclosed in Hed. Hed is directed to a luminaire that comprises a housing that holds a plurality of LEDs and a light-transmissive diffuser.

Neither reference cited by the Examiner, alone or in conjunction with each other, discloses nor suggests the use of a plurality of LEDs in conjunction with an optical assembly for focusing and dispersing the LED beam for use in an undercabinet lighting assembly. In fact, the Hed reference specifically teaches away from the presently claimed subject matter. Hed teaches the use of a dual screen diffuser that assures that the light emitted emanates from the outer surface of the luminaire is completely intermixed. The Examiner is using hindsight to combine the Blackman and Hed references. There is no suggestion in the Blackman reference to use a light diffuser in order to focus and disperse an LED beam in an undercabinet

lighting assembly. Further, there is no suggestion in Hed to use the dual screen diffuser to focus and disperse an LED beam in conjunction with a fluorescent light fixture mounted within the lighting fixture. As the Examiner is using hindsight to combine the references, it cannot be said that Blackman in view of Hed renders the presently claimed subject matter obvious.

Claim 1 of the present application, and claims 8-10 and 13-14 dependent therefrom, disclose the use of an optical assembly, not a light diffuser, whose function is not to intermix the emitted light as disclosed in Hed, but rather, whose function is to selectively focus the emitted light to provide a more concentrated or a more disperse light emission. The light diffuser of Hed is fixed and is comprised of two separate plates, which differs from the optical assembly of the present invention, which is selectively adjustable.

Furthermore, claim 15, and claims 22-24, 27 and 28 dependent therefrom, distinguish patentably from the references cited by the Examiner. As amended, claim 15 recites an undercabinet lighting assembly where the plurality of light sources are powered by an AC power source and a battery source upon failure of the AC power source. This feature is neither disclosed nor suggested by the references cited by the Examiner. The present application claims a battery that serves as a backup to the AC power source. In contrast, Blackman discloses the use of a battery within the flashlight component of a fluorescent light fixture assembly. Thus, it is not contemplated in Blackman to use a battery backup for the light source of the fixture. Rather, Blackman uses a separate light source device that is powered by a battery. Therefore, it cannot be said that claim 15, and claims 22-24, 27 and 28 dependent therefrom, are obvious over Blackman in view of Hed.

The references cited by the Examiner do not disclose nor suggest an optical assembly associated with the housing for selectively focusing and dispersing the LED beam to a desired light contour. Nor do the references cited disclose or suggest the use of a battery backup for an LED undercabinet lighting assembly. As such, it cannot be said that the presently claimed subject matter is unpatentable over Blackman in view of Hed. Therefore, Applicant respectfully requests that the Examiner remove all rejections of claims 1, 8-10, 13-15, 22-24, 27 and 28, and allow the pending claims.

**D. Rejection Under §103(a) Over Blackman in View of Hed and Hipp**

The Examiner also rejected claims 2-7 and 16-21 under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed and Hipp. The Examiner stated that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the rheostat of Hipp in the circuitry system of Blackman in order to provide a control of electric current. Further, the Examiner stated that, with respect to Hed, it would have been obvious to use the controller of Hed in the switch of Blackman in order to provide a variable electrical current.

Applicant respectfully submits that the Hed and Hipp references in view of the Blackman reference do not render the present invention obvious. Claim 2 of the present application specifically calls for an undercabinet lighting assembly that includes a switch coupled to a variable resistor for controlling the level of optical output. The references cited by the Examiner do not disclose nor suggest an undercabinet lighting assembly that comprises a housing that can be fixed to a surface, a plurality of LEDs as the light source and an optical assembly for focusing and dispersing the LED beam that is coupled to a variable resistor for controlling the level of optical output.

In fact, Hipp specifically teaches away from the present invention. Hipp discloses a lighting intensity control system that is directed to a lighting assembly comprising both incandescent and LED light sources. The resistor disclosed in Hipp is specifically designed for normalizing the light intensity versus the voltage. As explained in column 2, lines 16-44, the first lighting element, an incandescent source, has a considerably nonlinear intensity versus voltage characteristics. In contrast, the second lighting element, an LED source, has significant linear intensity versus voltage characteristics. As stated in the specification, the lighting intensity signal of Hipp is specifically designed for having both incandescent and LED light sources: "[a]s indicated previously, first lighting elements 12 have significantly nonlinear intensity versus voltage characteristics. Therefore, circuitry 29 is interposed between output 28 and second lighting elements 13 in order to make the intensity versus voltage characteristics of second lighting elements 13 react nonlinearly (and similarly to the characteristics of first lighting elements 12) as well." *See, Hipp at column 3, lines 19-29.* Thus, the resistor as designed in Hipp would not be compatible with the undercabinet lighting assembly of the present application. Nor would it be obvious to one of ordinary skill in the art to combine the rheostat of

Hipp with the circuitry of Blackman to achieve the present claimed lighting assembly, since, as explained in Hipp, the particular elements would not be compatible.

Further, one of ordinary skill in the art would not have found it obvious to use the controller of Hed as a switch as shown in Blackman to power a group of LEDs in order to provide variable electrical current. Hed discloses, at column 9, lines 57-64, the controlling of relative intensities of the monochromatic light source in conjunction with dual screens to assure redistribution of the light from each group of three extraction fibers to provide diffuse light. Specifically, claim 3 of the present invention calls for a switch coupled to a variable resistor that is adapted to selectively turn on and off any select number of LEDs within the array of LEDs within an undercabinet lighting assembly. One of ordinary skill in the art would not be motivated to use such a light controlling device in a combination light fixture having a detachable flashlight and a nightlight.

As such, Applicant respectfully submits that the references cited by the Examiner do not render the presently claimed subject matter obvious. Applicant requests that the Examiner remove all rejections to claims 2-7 and 16-21 and allow the claims as written.

**E. Rejection Under §103(a) Over Blackman in View of Hed and Splane**

In addition, the Examiner rejected claims 11 and 25 under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed and Splane. The Examiner contends that Blackman and Hed disclose all of the elements of the presently claimed subject matter except an optical assembly being selectively adjustable, and that Splane discloses such an optical assembly. The Examiner states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the adjusting assembly of reflectors of Splane in the fluorescent light fixture and the night light of Blackman in order to provide an advantageous adjustment for focusing.

Applicant respectfully submits that Blackman in view of Splane and Hed does not render the present invention obvious. The Examiner states that Splane discloses an adjustable assembly that could be combined with LED lamps in order to form the presently claimed undercabinet lighting assembly. Applicant has amended claims 11 and 25. As such, Applicant submits that the rejected claims are

in condition for allowance and thus, respectfully requests that the Examiner remove all rejections to claims 11 and 25 and allow passage of the claims.

**F. Rejection Under §103(a) Over Blackman in View of Hed and Gordin**

The Examiner also rejected claims 12 and 26 under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed and Gordin. The Examiner stated that Gordin shows the use of a light source being moveable relative to a reflector, and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the moveable light source assembly of Gordin in the fluorescent light fixture and the night light of Blackman in order to provide an advantageous adjustment of focusing.

Applicant has amended claims 12 and 26 and submits that the claims are in condition for allowance. As such, Applicant respectfully requests that the Examiner remove the rejections to claims 12 and 26 and allow passage of the claims.

**G. Conclusion**

Applicant respectfully submits that the rejections set forth by the Examiner the Office Action of September 13, 2001 have been overcome. In addition, Applicant submits that newly added claim 29 recites patentable subject matter and is further supported by the specification.

Accordingly, Applicant respectfully submits that the pending claims are in condition for allowance. Withdrawal of the rejections and early notification of allowability are earnestly solicited. Should any issues remain, the Examiner is encouraged to contact the undersigned to resolve any such issues.

Respectfully submitted,

FAY, SHARPE, FAGAN,  
MINNICH & MCKEE, LLP

Date: December 13, 2001

  
\_\_\_\_\_  
Scott A. McCollister, Reg. No. 33,961  
1100 Superior Avenue, Seventh Floor  
Cleveland, Ohio 44114-2518  
(216) 861-5582

Attachment: Version with Markings to Show Changes Made

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Claims:**

The claims have been amended as follows:

1. (Amended) An undercabinet lighting assembly comprising:
  - a housing;
  - a first plurality of Light Emitting Diodes (LEDs) mounted within the housing forming at least one array of LEDs, the LEDs generating an LED beam and serving as a light source;
  - an optical assembly operatively associated with the housing for focusing and dispersing the LED beam traveling through said optical assembly to a desired light contour; and
  - a fixing apparatus disposed on a surface of the housing for attaching the undercabinet lighting assembly to an associated structure.
11. (Amended) The undercabinet lighting assembly according to claim 1, wherein the optical assembly is continuous and encapsulates the LED array, and is selectively adjustable for focusing and dispersing the LED beam as desired.
12. (Amended) The undercabinet lighting assembly according to claim 1, wherein the optical assembly encapsulates the LED array and is fixed, and the array of LEDs serving as the light source is selectively moveable for focusing and dispersing the LED beam as desired.
15. (Amended) An undercabinet lighting assembly comprising:
  - a housing; and
  - a first plurality of Light Emitting Diodes (LEDs) mounted within the fixture housing forming at least one array of LEDs, the array of LEDs generating an LED beam and serving as a light source, said plurality of devices being powered by an AC power source and a battery source upon failure of the AC power source.



25. (Amended) The undercabinet lighting assembly according to claim 15, further comprising at least one continuous, encapsulating [an] optical assembly operatively associated with the fixture housing which is selectively adjustable for focusing and dispersing the LED beam.

26. (Amended) The undercabinet lighting assembly according to claim 25, wherein the optical [lens] assembly encapsulates at least one of the array of LEDs and is fixed, and the array of LEDs serving as the light source is selectively moveable for focusing and dispersing the LED beam.

Please add new claim 29.

29. An undercabinet lighting assembly comprising:  
a housing;  
a first plurality of white Light Emitting Diode (LED) and phosphor devices mounted within the housing forming at least one array of LEDs, the LEDs generating an LED beam directed towards an associated target area and serving as a light source, said plurality of devices being powered by an AC power source and a battery source upon failure of the AC power source;  
an optical assembly located between said associated target area and said array of LEDs which is operatively associated with the housing for focusing and dispersing the LED beam to a desired light contour; and  
a fixing apparatus disposed on a surface of the housing for attaching the undercabinet lighting assembly to an associated structure.

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Edward J. Thomas et al.  
For : **UNDERCABINET LIGHTING WITH  
LIGHT EMITTING DIODE SOURCE**  
Serial No. : 09/604,468  
Filing Date : June 27, 2000  
Examiner : B. Truong  
Art Unit : 2875  
Attorney Docket No. : LD 11108  
GEC 2 0317 (I)

COPY OF PAPERS  
ORIGINALLY FILEDCleveland, Ohio 44114-2518  
January 16, 2002RECEIVED  
FEB 21 2002  
TC 2800 MAIL ROOM

## STATEMENT REGARDING USPS MAIL DELAYS

Assistant Commissioner for Patents  
Washington, D. C. 20231

Dear Sir:

The enclosed document, "AMENDMENT" was mailed to the USPTO on the date of the certificate of mailing, i.e. December 13, 2001. For reasons unknown to us, these documents were returned to our offices on January 14, 2002.

Pursuant to the OG Notice entitled "Processing of, and Requirements for, the Filing of Duplicate Applications and Papers in Patent Applications in view of USPS Mail Delays," Section II.B., Applicants respectfully request that the USPTO accept the enclosed copies of the previously mailed documents with signed and dated Certificate of Mailing as having been timely filed.

Respectfully submitted,  
FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP

Date:

January 21, 2002

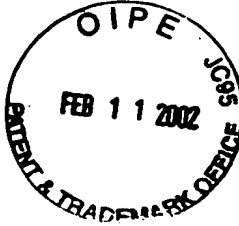
  
\_\_\_\_\_  
Scott A. McCollister  
Reg. No. 33,961  
1100 Superior Avenue, Seventh Floor  
Cleveland, Ohio 4411-2518  
Telephone: (216) 861-5582

## CERTIFICATE OF MAILING

I hereby certify that this STATEMENT REGARDING USPS MAIL DELAYS in connection with the above identified U.S. Patent Application is being deposited with the United States Postal Service and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on JAN 20, 2002.

  
\_\_\_\_\_  
Georger B. George

## AMENDMENT TRANSMITTAL LETTER

Attorney Docket No. GEC 2 0317(I)  
LD 11108

Serial No.: 09/604,468	Filing Date: June 27, 2001	Examiner: TRUONG, B.
Group Art Unit: 2875	Invention: <b>UNDERCABINET LIGHTING WITH LIGHT EMITTING DIODE SOURCE</b>	

To the Assistant Commissioner for Patents:

COPY OF PAPERS  
ORIGINALLY FILED

Transmitted herewith is an Amendment in the above-identified application. The fee has been calculated as shown below.


CLAIMS AS AMENDED						
	Claims remaining after amendment		Highest Number Previously Paid For	No. of Extra Claims Present	Rate	Additional Rate
Total Claims	29	Minus	28	1	\$18	\$18.00
Indep. Claims	3	Minus	3	3	\$84	\$00.00

- ☒ A check in the amount of \$18.00 is attached.
- ☒ Applicants hereby petition the Commissioner under 37 C.F.R. §1.136(a) and request any additional extensions of time that may be necessary and authorize the extension of time fees to be charged to Deposit Account No. 06-0308.
- ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, without specific authorization, or credit any overpayment to Deposit Account No. 06-0308.

Respectfully submitted,

FAY, SHARPE, FAGAN,  
MINNICH & MCKEE, LLP

Date:

December 13, 2001
  
 Scott A. McCollister  
 Reg. No. 33,961

 1100 Superior Avenue, Seventh Floor  
 Cleveland, Ohio 44114-2518  
 (216) 861-5582

 RECEIVED  
 FEB 21 2001  
 TC 2800 MAIL ROOM
**CERTIFICATE OF MAILING**

I hereby certify that this AMENDMENT TRANSMITTAL is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231 on December 13, 2001.

  
 Georgeen B. George